ORANGE TREE TO BREAKFAST TABLE

Marketing Costs and Margins for Florida Oranges

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
Marketing Research Division
Marketing Research Report No. 164
Washington, D. C., June 1957

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 10 cents

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Marketing Costs and Margins for Florida Oranges

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The orange picked from the tree in Florida differs greatly from the orange the consumer pays for at the checkout counter of the supermarket or neighborhood grocery store. After being picked, the orange is hauled from the grove to the packinghouse, degreened, washed, brushed, waxed, inspected, sorted, packed, loaded onto railroad car or truck, and shipped to market. At the terminal market, it must be unloaded from railroad car or truck, sold through the auction or by private sale, hauled to the wholesaler's store or the chainstore warehouse, unloaded, sold to a retailer, and loaded and hauled to his store. Or the fruit may be sold f. o. b. shipping point and sent direct to a chainstore warehouse or a wholesaler. At the retail store it is unloaded, moved into the store, placed on the display rack, separated from spoiled and damaged fruit, and sold to the consumer. Each of these operations requires labor and equipment; substantial costs are involved. Many of these operations have been mechanized so that less labor is required than formerly. Research in the U. S. Department of Agriculture and State agricultural experiment stations is pointing the way to further increases in efficiency.

In this report, marketing margins and costs for Florida oranges sold at auction in New York City and Chicago during the 1955–56 season are summarized. Some comparisons with similar costs in New York City during the 1949–50 season are presented. Costs and margins for the substantial volume of oranges sold by other means than through the fruit auctions are not considered here. The charges for many of the services would be the same regardless of the method of sale.

Prices and returns were higher for oranges sold in New York City than for those sold in Chicago largely because much more Indian River fruit—which brings higher prices—was shipped to New York.

The charges for marketing a 90-pound box of Florida oranges in New York City during the 1955–56 season averaged $6.32. The Florida grower received an average of $1.77 per box for his oranges on the tree, which was 22 percent of the retail price.

Marketing charges for a similar box of oranges sold in Chicago were $5.42. The producer's on-tree return averaged $1.34 on this fruit, or 20 percent of the retail price.

This is one of a series of reports analyzing marketing costs and margins for food products to be published by the Marketing Re-

search Division of the Agricultural Marketing Service. The figures were compiled from reports and data of the Agricultural Marketing Service, the Bureau of Labor Statistics, the Florida Agricultural Experiment Station, and the Florida State Marketing Bureau.

Picking, Hauling, and Packing

Picking the fruit from the tree and loading it onto trucks for the trip to the packinghouse cost packinghouse operators an average of 31 cents per box, 27 cents of which was for labor—mostly to the picking crews—and nearly 3 cents for equipment. Hauling the fruit to the packinghouse cost 10 cents per box, 6 cents of which was for equipment. Most of the remainder was for truck drivers.

Packinghouse operations—unloading the fruit from the truck, degreening, washing, grading, packing, and reloading it—cost 97 cents per box. The largest part of this went for materials, chiefly the 1⅗ bushel wirebound box. Labor costs were 23 cents per box. Of course, many Florida oranges are packed in other containers, including the standard wooden boxes, fiberboard boxes, and mesh bags. Packing in these other containers costs more than in the 1⅗ bushel wirebound box.

Transportation

Charges for rail transportation from Lake Wales, Fla., in the heart of the central Florida citrus area, to New York City totaled $1.27 per box and to Chicago $1.23 per box from November through March. A general increase in rail freight rates in April increased the charges to $1.32 to New York City and $1.29 to Chicago. An increase in refrigeration charges further raised the charges to New York City to $1.34 and to Chicago to $1.32 in May and June. These charges include rail freight at the standard billing weight of 93 pounds per box, standard refrigeration figured on 500 boxes per car, an unloading charge in New York City, and the 3-percent Federal transportation tax on all items (table 2).

Auction Selling Charges

The first actual sale of packed fruit was by auction in the terminal

TABLE 1.—*Costs per 1⅗ bushel wirebound box of picking, hauling, and packing Florida oranges, 1955–56*

Cost item	Picking	Hauling	Packinghouse operations	Total
	Cents	*Cents*	*Cents*	*Cents*
Labor	27. 0	3. 6	22. 7	53. 3
Material			43. 3	43. 3
Equipment and other operating costs	2. 7	5. 9	8. 4	17. 0
Administrative	1. 7	. 6	4. 5	6. 8
Selling and assessments			17. 8	17. 8
Total	31. 4	10. 1	96. 7	138. 2

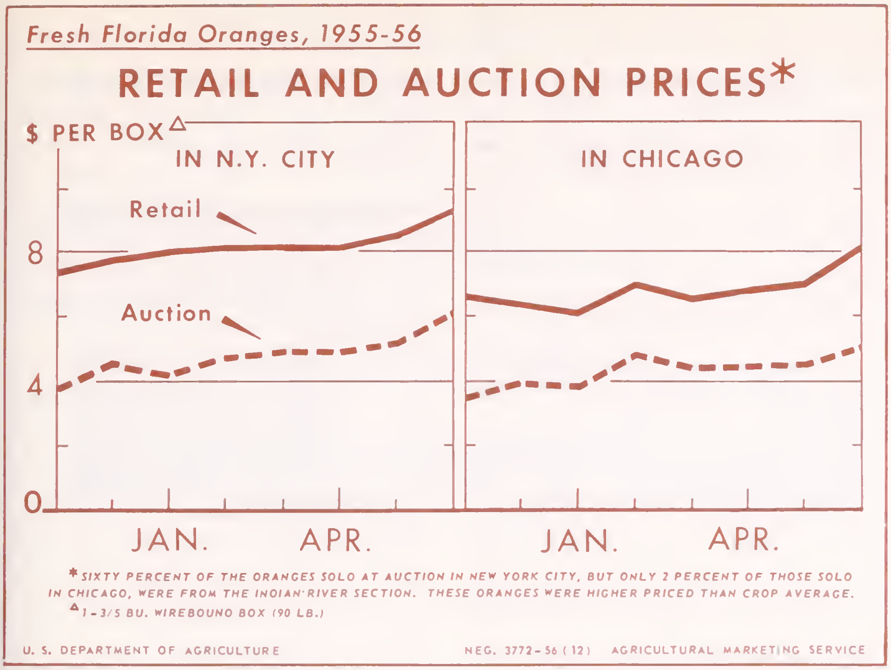

Figure 1.

market, though much fruit is sold by other agencies also. The average price of all Florida oranges sold on the New York fruit auction during the second week of the month ranged from \$3.70 in November to \$6.14 per box in June, and in general rose through the 1955–56 season. In Chicago, prices per box rose from \$3.47 in November to \$5.06 in June. The average price for the 8-month period was \$4.75 in New York City and \$4.30 in Chicago (fig. 1). In each city, the auction commission was 2 percent of the sales price. The selling broker representing the shipper at the auction usually gets 4 percent of the sales price. In addition, there is a terminal charge of 6 cents per box in Chicago; in New York, a charge of 2.3 cents per box, for sorting and display. During the 1955–56 season, the charges averaged 31 cents a box in New York City and 32 cents a box in Chicago.

Table 2.—*Rail transportation charges per 1⅗ bushel wirebound box, Lake Wales, Fla., to New York City and Chicago, November 1955–March 1956*

Cost item, including tax	New York City	Chicago
	Cents	*Cents*
Rail freight	105. 4	104. 4
Standard refrigeration	13. 1	18. 7
Unloading	8. 2	0
Total	126. 7	123. 1

Wholesale-Retail Margin

Buyers at the auction include wholesalers of fresh fruits and vege-

tables and chainstore produce buyers. Some buyers hauled the fruit from the railroad siding to their places of business in their own trucks. Others hired truckers specializing in this business. During the 1955–56 season, truckers charged 20 cents a box in New York City and 12 cents a box in Chicago for trips within the wholesale market district. For longer hauls within the city or beyond the city limits, the charge was proportionately higher.

The difference between the auction price plus cartage charge and the retail price is the wholesale-retail margin. Operations of both chain and independent retail stores are included; wholesale and retail components cannot be separated. The wholesale-retail margin averaged $3.14 in New York City and $2.34 in Chicago over the 1955–56 season. This margin covered all of the operations of the wholesaler and retailer, including:

1. Unloading oranges from truck at warehouse.
2. Selling to or taking order from retail store.
3. Loading into truck and hauling to retail store.
4. Unloading from truck at store and moving into produce storage.
5. Moving into produce department and placing on display.
6. Maintenance of display, including removal of spoiled or damaged fruit.
7. Bagging (in service stores) and weighing fruit.
8. Checkout and often delivery to the customer's car.

The average box of Florida oranges contains about 90 pounds of fruit when delivered to the retail store, but the retailer seldom is able to sell every orange in the box. Losses from waste and spoilage average about 2 percent in the retail store.[1] Thus, from each 90-pound box of fruit purchased by the store about 88.2 pounds were sold. The retail cost and selling price have been adjusted to reflect these losses.

The wholesale-retail margin varied over the season. In New York City, it was generally somewhat lower when the auction price was relatively high. In June, the average auction price for all Florida oranges was at the seasonal peak of $6.14 per box and the wholesale-retail margin was the lowest of the season, $2.92 per box (fig. 1). The highest margins in New York City were in November and January, when the figures were $3.42 and $3.56 per box, respectively.

In Chicago, the wholesale-retail margin was highest at the beginning and the end of the season and fairly constant during the intervening months. It was $2.94 per box in November and $2.85 in June. From December through May it varied between $1.99 and $2.30 (fig. 2).

Returns to Producer

On-tree returns to the producer averaged $1.34 per box of packed fruit for oranges sold in Chicago and $1.77 per box for fruit sold in

[1] D. B. Johnson, Marketing Charges for Oranges Sold in Pittsburgh and Cleveland, 1949–50 Season. U. S. Bur. Agr. Econ., Mktg. Res. Rpt. No. 27, Jan. 1953, 40 pp., illus.

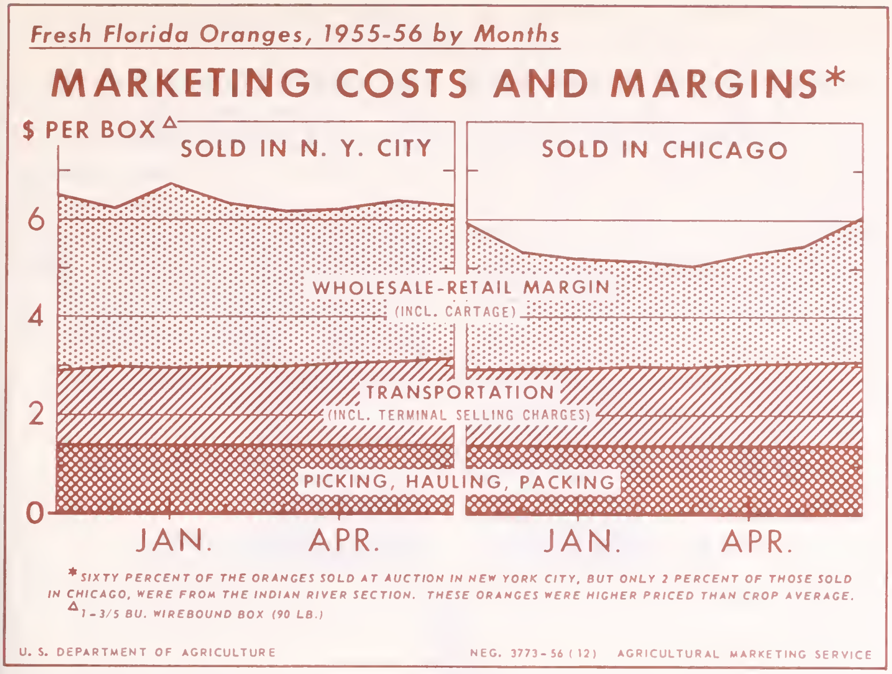

FIGURE 2.

New York City during the 1955–56 season. The return was 22 percent of the retail price in New York City and 20 percent in Chicago. In general, prices and returns were higher during the latter part of the season, partly because of the greater proportion of Valencia oranges. On-tree returns for oranges sold in New York City increased from 81 cents per packed box in November 1955 to $3.03 per box in June. During the peak of the season in February, March, and April, returns were between $1.74 and $1.90 per box. For oranges sold in Chicago, the overall range for the season was from 59 cents to $2 per box, with midseason returns between $1.42 and $1.84 per packed box (fig. 3). Figures for on-tree returns as calculated in this report include any profit on picking, hauling, and packing. The costs of these shipping point marketing services which are deducted from the packinghouse-door return to obtain on-tree returns do not include any allowance for profits or losses. In many cases, the same firms own the groves and the packinghouses, and their profits would be earned on the combined production and packing operation.

Prices at all levels were higher for Florida oranges sold in New York City than for those sold in Chicago during 1955–56, principally because of the large volume of Indian River oranges sold in New York. Nearly 60 percent of the oranges sold on the New York City auction markets during the 1955–56 season were from the Indian River section and they brought an average of 39 cents a box more than those from

the interior. Less than 2 percent of the oranges sold at auction in Chicago during the 1955–56 season were from the Indian River area. Thus, the 45-cent difference between the on-tree returns for oranges sold in New York and Chicago is accounted for chiefly by the greater proportion of higher-priced Indian River fruit in New York.

margin were significantly higher in New York.

In terms of percent of retail price, producers received a slightly smaller share of the total in Chicago than they did in New York. Picking, hauling, packing, transportation, and selling costs represented larger shares of the consumer's dollar. Terminal cartage and the wholesale-retail margin accounted for

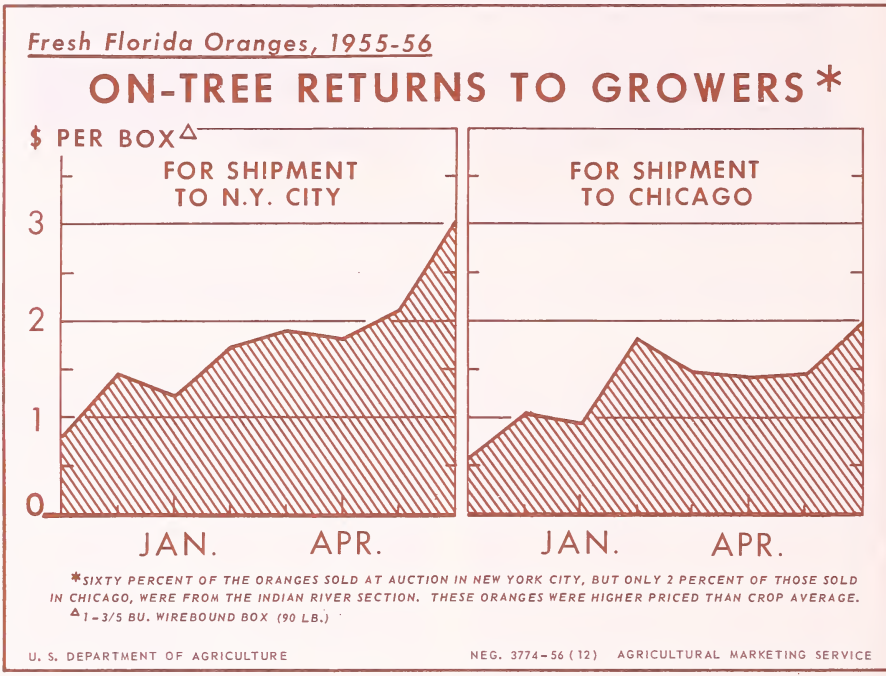

Figure 3.

Most costs were also higher in New York (fig. 4). Costs of picking, hauling, and packing were the same regardless of market, but rail transportation charges per box were 3 cents higher to New York City than to Chicago, owing to the unloading charge in New York. Selling charges were about the same in both markets, while cartage charges and the wholesale-retail

smaller shares of the retail price in Chicago than they did in New York City.

Changes in Costs and Margins, 1949-50 to 1955-56

The total marketing margin—the spread between the retail price and the on-tree return to producers—for oranges sold in New York City

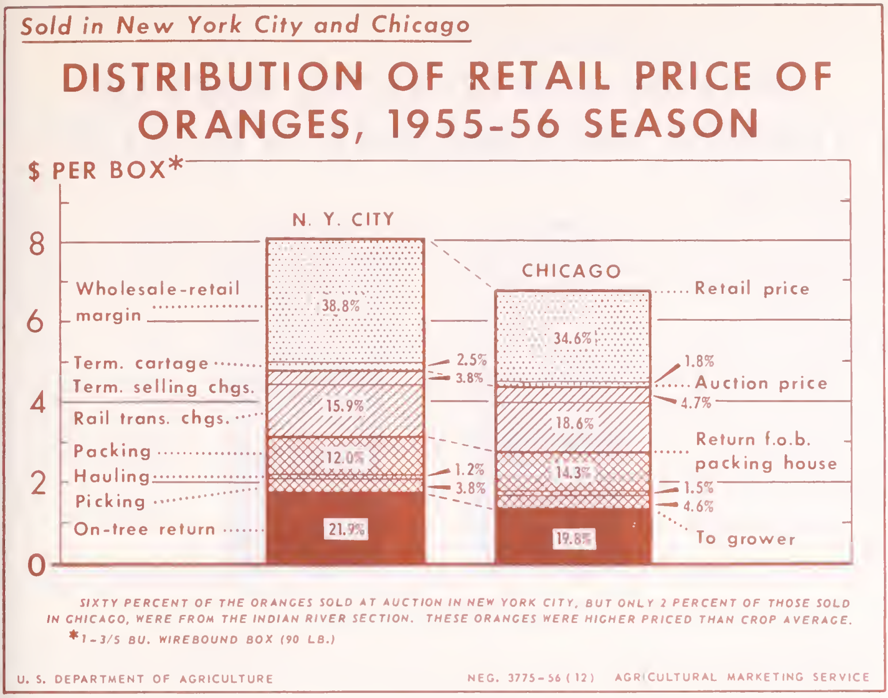

Figure 4.

increased 7 percent between the 1949–50 season and the 1955–56 season (figs. 5 and 6). Retail prices declined approximately 2 percent, while on-tree returns to growers declined 25 percent. All costs and margins increased over the period, but the changes were much greater for some categories than for others. The combined wholesale-retail margin increased only 1 percent and packing costs 6 percent, while all other costs increased at faster rates. The major contributors to the increase of 43 cents in margins between the two periods were increases in terminal selling charges of 14 cents, in picking and hauling costs, 11 cents, and in rail transportation and packing costs, 6 cents each.

In making comparisons of margins and prices between 1949–50 and 1955–56, the reader should recognize that prices and on-tree returns to producers were exceptionally high in both years when compared with those in other postwar years. The season average on-tree price for oranges sold for fresh consumption was higher in 1949–50 than in any other postwar year and the 1955–56 level was the second highest. Comparisons of prices between the two periods should be made with this in mind. Comparisons of most cost items are not seriously affected by the level of prices.

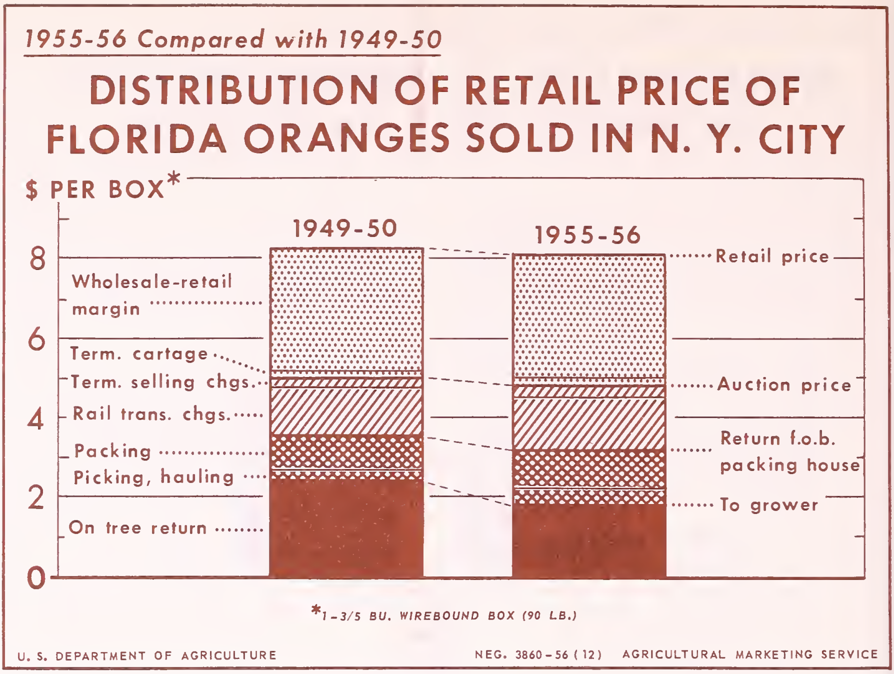

Figure 5.

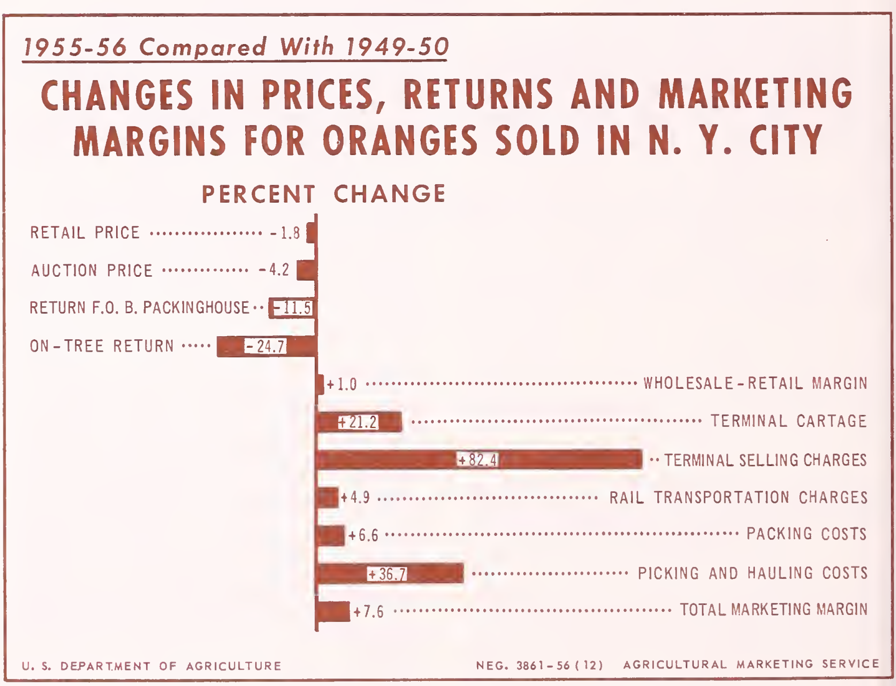

Figure 6.

Table 3.—*Costs and margins for Florida oranges sold in New York City per 1⅗ bushel wirebound box, by months, 1955–56*

Year and month [1]	Retail price	Wholesale-retail margin	Cartage	Auction price	Terminal selling charges	Rail transportation charges	Return f. o. b. packing house	Packing costs	Hauling costs	Picking costs	On-tree return	Total margin
1955:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Nov	7. 32	3. 42	0. 20	3. 70	0. 24	1. 27	2. 19	0. 97	0. 10	0. 31	0. 81	6. 51
Dec	7. 67	3. 06	. 20	4. 41	. 29	1. 27	2. 85	. 97	. 10	. 31	1. 47	6. 20
1956:												
Jan	7. 94	3. 56	. 20	4. 18	. 27	1. 27	2. 64	. 97	. 10	. 31	1. 26	6. 68
Feb	8. 03	3. 14	. 20	4. 69	. 30	1. 27	3. 12	. 97	. 10	. 31	1. 74	6. 29
Mar	8. 03	2. 96	. 20	4. 87	. 32	1. 27	3. 28	. 97	. 10	. 31	1. 90	6. 13
Apr	8. 03	2. 98	. 20	4. 85	. 31	1. 32	3. 22	. 97	. 10	. 31	1. 84	6. 19
May	8. 47	3. 10	. 20	5. 17	. 33	1. 34	3. 50	. 97	. 10	. 31	2. 12	6. 35
June	9. 26	2. 92	. 20	6. 14	. 39	1. 34	4. 41	. 97	. 10	. 31	3. 03	6. 23
Average	8. 09	3. 14	. 20	4. 75	. 31	1. 29	3. 15	. 97	. 10	. 31	1. 77	6. 32

[1] Retail prices are for the first 3 days of the week which includes the 15th of the month. Auction prices are weighted averages of all sales during the week preceding.

Table 4.—*Costs and margins for Florida oranges sold in Chicago per 1⅗ bushel wirebound box, by months, 1955–56*

Year and month [1]	Retail price	Wholesale-retail margin	Cartage	Auction price	Terminal selling charges	Rail transportation charges	Return f. o. b. packing house	Packing costs	Hauling costs	Picking costs	On-tree return	Total margin
1955:	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Nov	6. 53	2. 94	0. 12	3. 47	0. 27	1. 23	1. 97	0. 97	0. 10	0. 31	0. 59	5. 94
Dec	6. 35	2. 28	. 12	3. 95	. 30	1. 23	2. 42	. 97	. 10	. 31	1. 04	5. 31
1956:												
Jan	6. 09	2. 12	. 12	3. 85	. 29	1. 23	2. 33	. 97	. 10	. 31	. 95	5. 14
Feb	6. 97	2. 05	. 12	4. 80	. 35	1. 23	3. 22	. 97	. 10	. 31	1. 84	5. 13
Mar	6. 53	1. 99	. 12	4. 42	. 33	1. 23	2. 86	. 97	. 10	. 31	1. 48	5. 05
Apr	6. 70	2. 16	. 12	4. 42	. 33	1. 29	2. 80	. 97	. 10	. 31	1. 42	5. 28
May	6. 88	2. 30	. 12	4. 46	. 33	1. 32	2. 81	. 97	. 10	. 31	1. 43	5. 45
June	8. 03	2. 85	. 12	5. 06	. 36	1. 32	3. 38	. 97	. 10	. 31	2. 00	6. 03
Average	6. 76	2. 34	. 12	4. 30	. 32	1. 26	2. 72	. 97	. 10	. 31	1. 34	5. 42

[1] Retail prices are for the first 3 days of the week which includes the 15th of the month. Auction prices are weighted averages of all sales during the week preceding.

Table 5.—*Costs and margins for Florida oranges sold in New York City and Chicago, season average, per 1⅗ bushel wirebound box, 1955–56*

Item	Cost per box		Percentage of retail price	
	New York City	Chicago	New York City	Chicago
	Dollars	*Dollars*	*Percent*	*Percent*
Retail price	8. 09	6. 76	100. 0	100. 0
Wholesale-retail margin	3. 14	2. 34	38. 8	34. 6
Terminal cartage	. 20	. 12	2. 5	1. 8
Auction price	4. 75	4. 30	58. 7	63. 6
Terminal selling charges	. 31	. 32	3. 8	4. 7
Rail transportation charges	1. 29	1. 26	15. 9	18. 6
Return f. o. b. packinghouse	3. 15	2. 72	39. 9	40. 2
Packing costs	. 97	. 97	12. 0	14. 3
Hauling costs	. 10	. 10	. 2	1. 5
Picking costs	. 31	. 31	3. 8	4. 6
On-tree return	1. 77	1. 34	21. 9	19. 8

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